

WETLANDS PERMIT APPLICATION

Water Division/ Wetlands Bureau Land Resources Management



Check the status of your application: www.des.nh.gov/onestop RSA/Rule: RSA 482-A/ Env-Wt 100-900 1. REVIEW TIME: Indicate your Review Time below. To determine review time, refer to Guidance Document A for instructions. Standard Review (Minimum, Minor or Major Impact) ☐ Expedited Review (Minimum Impact only) 2. MITIGATION REQUIREMENT: If mitigation is required a Mitigation-Pre Application meeting must occur prior to submitting this Wetlands Permit Application. To determine if Mitigation is Required, please refer to the Determine if Mitigation is Required Frequently Asked Question. Mitigation Pre-Application Meeting Date: Month: Day: Year: N/A - Mitigation is not required 3. PROJECT LOCATION: Separate wetland permit applications must be submitted for each municipality that wetland impacts occur within. ADDRESS: Rte. 114 over Stocker Pond Outlet TOWN/CITY: Grantham UNIT: **BLOCK:** LOT: TAX MAP: □ NA STREAM WATERSHED SIZE: 2.72 sq. mi. USGS TOPO MAP WATERBODY NAME: Stocker Pond Outlet □ NA LOCATION COORDINATES (If known): 043`29'29.68" 072`06'30.37" □ Latitude/Longitude 4. PROJECT DESCRIPTION: Provide a brief description of the project outlining the scope of work. Attach additional sheets as needed to provide a detailed explanation of your project. DO NOT reply "See Attached" in the space provided below. Rehabilitate the bridge that carries Rte. 114 over Stocker Pond Outlet (140/069). The existing structure is a concrete slab bridge that has a span of 24'-0" and a width of 36'-3". Proposed work consists of the following: place sandbag cofferdams and temporary scaffolding, replace the deck, and place riprap through the structure along the edges of the channel and in front of the four wing walls. 5. SHORELINE FRONTAGE: □ NA This does not have shoreline frontage. SHORELINE FRONTAGE: Shoreline frontage is calculated by determining the average of the distances of the actual natural navigable shoreline frontage and a straight line drawn between the property lines, both of which are measured at the normal high water line. 6. RELATED NHDES LAND RESOURCES MANAGEMENT PERMIT APPLICATIONS ASSOCIATED WITH THIS PROJECT: Please indicate if any of the following permit applications are required and, if required, the status of the application. To determine if other Land Resources Management Permits are required, refer to the Land Resources Management Web Page. **Permit Type Permit Required File Number Permit Application Status** ☐ APPROVED ☐ PENDING ☐ DENIED YES **⊠** NO Alteration of Terrain Permit Per RSA 485-A:17 ⊠ NO APPROVED ☐ PENDING ☐ DENIED YES Individual Sewerage Disposal per RSA 485-A:2 ☐ YES ☐ APPROVED ☐ PENDING ☐ DENIED ⊠ NO Subdivision Approval Per RSA 485-A YES ⊠ NO ☐ APPROVED ☐ PENDING ☐ DENIED Shoreland Permit Per RSA 483-B

date a copy of the application was sent to the Local River Management Advisory Committee: Month: __ Day: __ Year: ____

N/A

7. NATURAL HERITAGE BUREAU & DESIGNATED RIVERS:

a. Natural Heritage Bureau File ID: NHB 17 - 2659

Designated River the project is in 1/4 miles of:

See the Instructions & Required Attachments document for instructions to complete a & b below.

8. APPLICANT INFORMATION (Desired permit holder)					
LAST NAME, FIRST NAME, M.I.: Johnson, Steve W					
TRUST / COMPANY NAME: NH Department of Transpor	tation MA	ILING ADDRESS: 7	Hazen Drive		
TOWN/CITY: Concord			STATE: NH	ZIP	CODE: 03302
EMAIL or FAX: Steve.Johnson@dot.nh.gov		PHONE: 603 27	1 3667		
ELECTRONIC COMMUNICATION: By initialing here:	I hereby authoriz	e NHDES to commu	nicate all matters	relative to	his application
9. PROPERTY OWNER INFORMATION (If different tha	n applicant)				
LAST NAME, FIRST NAME, M.I.:					
TRUST / COMPANY NAME:	MA	ILING ADDRESS:			
TOWN/CITY:			STATE:	ZIP	CODE:
EMAIL or FAX:		PHONE:			
ELECTRONIC COMMUNICATION: By initialing here lelectronically	l hereby authoriz	e NHDES to commu	nicate all matters	relative to t	his application
10. AUTHORIZED AGENT INFORMATION					
LAST NAME, FIRST NAME, M.I.: Douglas, Locker		COMPAN	Y NAME:NH D	ept. of Tr	ansportation
MAILING ADDRESS: 7 Hazen Drive	***************************************				
TOWN/CITY: Concord			STATE: NH	ZIF	CODE: 03302
EMAIL or FAX: Douglas.Locker@dot.nh.gov	PI	HONE: 603 271 3	667		
ELECTRONIC COMMUNICATION: By initialing here electronically	I hereby authoriz	e NHDES to commu	nicate all matters	relative to t	his application
11. PROPERTY OWNER SIGNATURE:					
See the Instructions & Required Attachments document fo	or clarification o	the below statem	ents		
By signing the application, I am certifying that:	this form to act	in my hehalf in the	nrocessing of	this applica	ation, and to furnish
1. I authorize the applicant and/or agent indicated on this form to act in my behalf in the processing of this application, and to furnish upon request, supplemental information in support of this permit application.					
2. I have reviewed and submitted information & attachments outlined in the Instructions and Required Attachment document.					it document.
 3. All abutters have been identified in accordance with RSA 482-A:3, I and Env-Wt 100-900. 4. I have read and provided the required information outlined in Env-Wt 302.04 for the applicable project type. 					
 5. I have read and understand Env-Wt 302.03 and have chosen the least impacting alternative. 6. Any structure that I am proposing to repair/replace was either previously permitted by the Wetlands Bureau or would be considered 				would be considered	
grandfathered per Env-Wt 101.47.					
7. I have submitted a Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) to the NH State Historic Preservation Officer (SHPO) at the NH Division of Historical Resources to identify the presence of historical/ archeological resources while coordinating with the lead federal agency for NHPA 106 compliance.					
8. I authorize NHDES and the municipal conservation	commission to				
9. I have reviewed the information being submitted an10. I understand that the willful submission of falsified of					
Environmental Services is a criminal act, which may	y result in legal	action.			
 11. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining. 12. The mailing addresses I have provided are up to date and appropriate for receipt of NHDES correspondence. NHDES will not forward returned mail. 					
Stere William	Steve W Jol	nson		10 /12/	2017
Property Owner Signature	Print name legil	oly		Date	

MUNICIPAL SIGNATURES

12. CONSERVAT	TION COMMISSION SI	GNATURE	
The signature below certifies that the municipal conser 1. Waives its right to intervene per RSA 482-A:11; 2. Believes that the application and submitted plans at 3. Has no objection to permitting the proposed work.			

Print name legibly

DIRECTIONS FOR CONSERVATION COMMISSION

- 1. Expedited review ONLY requires that the conservation commission's signature is obtained in the space above.
- 2. Expedited review requires the Conservation Commission signature be obtained **prior** to the submittal of the original application to the Town/City Clerk for signature.
- 3. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, the application is not eligible for expedited review and the application will reviewed in the standard review time frame.

13. TOWN / CITY CLERK SIGNATURE			
As required by Chapter 482-A:3 (amended 2014), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.			
\Rightarrow			
Town/City Clerk Signature	Print name legibly	Town/City	Date

DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3.I

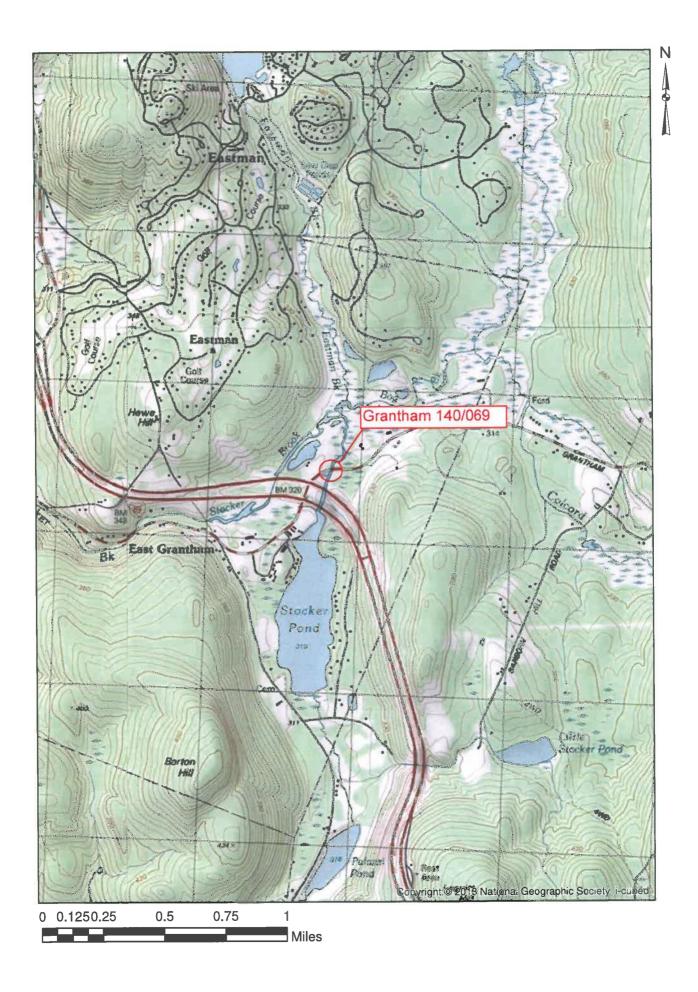
- 1. For applications where "Expedited Review" is checked on page 1, if the Conservation Commission signature is not present, NHDES will accept the permit application, but it will NOT receive the expedited review time.
- 2. IMMEDIATELY sign the original application form and four copies in the signature space provided above;
- 3. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
- 4. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board; and
- 5. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

1. Submit the single, original permit application form bearing the signature of the Town/ City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery.

Date

14. IMPACT AREA: For each jurisdictional area that will be/has been impacted, provide square feet and, if applicable, linear feet of impact				
Permanent impacts that will remain	after the project is complete.			
Temporary: impacts not intended to	remain (and will be restored to pre- PERMANENT	construction condition	ons) after the project is complete. TEMPORARY	
JURISDICTIONAL AREA	Sq. Ft. / Lin. Ft.		Sq. Ft. / Lin. Ft.	
Forested wetland		☐ ATF		ATF
Scrub-shrub wetland	8	ATF	91	ATF
Emergent wetland		ATF		ATF
Wet meadow		☐ ATF		☐ ATF
Intermittent stream	<u>,</u>	∐ ATF		ATF
Perennial Stream / River	518 / 73	☐ ATF	2516 / 94	☐ ATF
Lake / Pond	1	ATF	I	ATF
Bank - Intermittent stream	1	ATF	, I	☐ ATF
Bank - Perennial stream / River	91 / 22	ATF	275 / 48	ATF
Bank - Lake / Pond	1	☐ ATF	1	☐ ATF
Tidal water	1	ATF	<u> </u>	ATF
Salt marsh		ATF		ATF
Sand dune		ATF		ATF
Prime wetland		☐ ATF		ATF
Prime wetland buffer		☐ ATF		ATF
Undeveloped Tidal Buffer Zone (TBZ)		ATF		ATF
Previously-developed upland in TBZ		ATF		ATF
Docking - Lake / Pond		ATF		ATF
Docking - River		ATF	"	ATF
Docking - Tidal Water		☐ ATF		ATF
TOTAL	617 / 95		2882 / 142	
15. APPLICATION FEE: See the l	nstructions & Required Attachments	document for further	er instruction	
☐ Minimum Impact Fee: Flat fee				
	lculate using the below table below	2400 00 5	X \$0.20 = \$ 699.80	
	nt and Temporary (non-docking)	· · · · · · · · · · · · · · · · · · ·		
Tempora	ry (seasonal) docking structure:			<u> </u>
	Permanent docking structure:			
Proje	ects proposing shoreline structure	es (including docks		
			Total = \$ 699.80	
The Applica	ation Fee is the above calculated To	tal or \$200, whichev	ver is greater = \$ 699.80	



NHDFS-W-06-013



WETLANDS PERMIT APPLICATION – ATTACHMENT A MINOR AND MAJOR - 20 QUESTIONS

Land Resources Management Wetlands Bureau





RSA/ Rule: RSA 482-A, Env-Wt 100-900

<u>Env-Wt 302.04 Requirements for Application Evaluation</u> - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

The soffit has cracks and is delaminating. There are moderate spalls, exposed rebar, delamination and minor to light leaking in areas. In the concrete substructure there are vertical cracks, minor spalls and efflorescence. There are locations which need to have rip rap placed in order to provide adequate protection from scouring to the substructure. It is necessary to impact jurisdictional areas to provide for the repairs and maintenance of the bridge. The impacts are for the temporary construction areas and for the riprap placed within the channel and banks. If the stucture is not rehabilitated, it will eventually be load posted or closed.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

The alternatives considered are as follows:

Replace structure with a new structure in compliance with the NH Stream Crossing Guidelines: According to the NH Stream Crossing Guidelines, if a new structure were to be constructed at this location it would require a span of 26'-5. A structure of this size would cost approximately \$1,250,000. Spending this much money on a structure that could be adequately preserved for approximately \$100,000 would not be practicable use of resources.

Replace existing concrete deck: This is the proposed alternative. The structure can be preserved by removing the concrete deck and replacing it. The cracks in the existing substructure can be repaired in kind and the substructure can be protected by installing riprap. The riprap being proposed is less than the riprap that would be required for a new structure because a larger structure would have more area to protect. The temporary impacts for construction access are also less than what would be required for a new and larger structure. The project as proposed has an estimated cost of \$100,000. This is the most cost-effective solution and also proposes the least amount of wetland impacts.

In the October 19, 2016 Natural Resource Agency Coordination Meeting no concerns with this project were raised.

3. The type and classification of the wetlands involved.
R2UB3: Riverine, lower perennial, unconsolidated bottom, mud
PSS1E: Palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated
Bank
4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.
Stocker Pond is a waterbody Protected by and subject to RSA 483-B, The Shoreland Water Quality Protection Act.
5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.
Stocker Pond Outlet has not been identified as a rare surface water of the state.
Stocker Folia Outlet has not been identified as a rare surface water of the state.
×
6. The surface area of the wetlands that will be impacted.
3034 sq. ft. Riverine (2516 sq. ft. temporary, 518 sq. ft. permanent)
99 sq. ft. Palustrine (91 sq. ft. temporary, 8 sq. ft. permanent)
366 sq. ft. Bank (275 sq. ft. temporary, 91 sq. ft. permanent)

- 7. The impact on plants, fish and wildlife including, but not limited to:
 - a. Rare, special concern species;
 - b. State and federally listed threatened and endangered species;
 - c. Species at the extremities of their ranges;
 - d. Migratory fish and wildlife;
 - e. Exemplary natural communities identified by the DRED-NHB; and
 - f. Vernal pools.
- a) No rare or special concern species were identified within the proposed project area.
- b)Through the U.S. Fish and Wildlife Services IPaC (05E1NE00-2017-SLI-2492) review a hit for the "Threatened" Northern Longeared Bat was listed. The proposed work will not remove any trees greater than 3" diameter at breast height and the existing bridge is a concrete slab structure that is low to the water and is not condusive for bat roosting. The Department has coordinated with DRED and results of the NHB review revealed no records in this area for state or federally listed threatened and endangered species.
- c) There are no species known to be at the extremities of their ranges located in the project area.
- d) Migratory fish will not be affected due to this project. During construction, streamflow will be maintained through a portion of the natural channel, allowing fish to pass through the work zone. Upon project completion, migratory fish will be able to travel through the entire channel. Migratory wildlife will not be affected as a result of this project.
- e) The Department has coordinated with DRED and results of the NHB review revealed no records in this area for state or federally listed threatened and endangered species. "No records" for exemplary natural communities were identified in this area.
- f) There were no vernal pools identified and/or delineated in the project area.
- 8. The impact of the proposed project on public commerce, navigation and recreation.

During construction access will be maintained through one lane traffic (phase construction) allowing continued travel and access to any commerce along Rt. 114. Access will be maintained with a one lane closure. Stocker Pond Outlet is a non-navigable water which makes it non-conducive to boaters. There are no recreational areas that have been identified in this area except for the possibility for fishing. During construction fishing activities from the banks of the brook will need to occur outside of the construction work zone. When construction is completed, the project as proposed will be a benefit to the public commerce.

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

The project will not interfere with the aesthetic interests of the general public. The proposed improvements will be more pleasing to the eye than the structure in poor condition and/or will most likely be unseen by a traveler along NH Rt. 114.

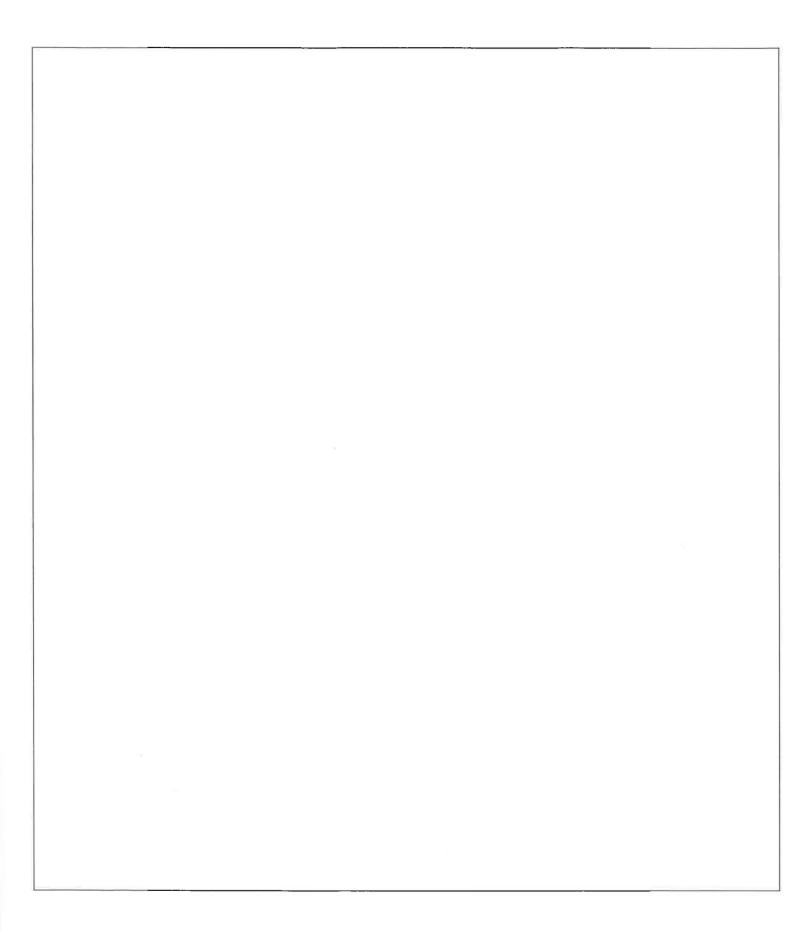
10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.		
The project will not interfere with or obstruct public rights of passage or access. During construction, traffic will be maintained hrough one lane of traffic at all times. Upon completion of this project the road will be returned to the full lane width.		
11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.		
The project is expected to have a positive impact on abutting properties. The rehabilitated structure will better serve the abutting properties if they need to travel on the road.		
The project as proposed will not alter the chance of flooding on abutting properties.		
12. The benefit of a project to the health, safety, and well being of the general public.		
The project will provide a safer, longer lasting structure and roadway. If the structure is not rehabilitated, the bridge will eventually be load posted or closed. Keeping the roadway open benefits commerce, trade, emergency access, etc., for the general public.		

13. The impact of a proposed project on quantity or quality of surface and groundwater. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.
The surface water currently runs off the road, over natural vegetation along the edge of the road and banks of the waterbody, and/or off the headwalls and wingwalls into the waterbody. Upon completion of the project, surface water will drain in the same manner. The proposed work will not change the quality or quantity of surface and groundwater within the project limits. Best Management Practices will be used to prevent any adverse effect on water quality during construction.
14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.
Flooding: The structure is within a FEMA mapped Flood Hazard Area (Zone AE); however the structure itself does not create the flood rise. Stocker Pond Outlet flows north into Stocker Brook approximately 1/4 mile downstream. According to the FEMA flood study during large flood events, the backwater from Stocker Brook reverses the flow of Stocker Brook Outlet and water flows south under Interstate 89 and then overland flows west back into Stocker Brook. Increasing the size of this structure would not reduce the flooding caused by the backwater from Stocker Brook. *See attached Flood Insurance Rate Map
Erosion: Replacing the deck will have no effect on erosion. Placing riprap will reduce the potential for erosion adjacent to the bridge.
Sedimentation: No changes will occur that will increase sedimentation at the completion of the project. Any riprap placed within the channel will be placed level with the stream bed and will not increase flooding, erosion, or sedimentation. The riprap placed along the banks at the wingwalls will not alter the water body's flood storage capacity.
15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.
Surface waters will not be reflected of redirected as a result of this project. Stocker Pond Outlet does not have enough surface area for wave energy to be an issue.

16.	The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.			
	The work consists of the repair of an existing bridge structure. There are no similar structures in the vicinity owned by other parties that would require repair.			
17	The impact of the proposed project on the values and functions of the total wetland or wetland complex.			
The	e value of the wetland for living organisms will not be changed as a result of this project. A function of Stocker Pond Outlet is to			
tra	nsport water from a higher elevation to a lower elevation and this project will not interfere with that function.			

18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.
The project is not located in or near any Natural Landmarks listed on the National Register.
19. The impact upon the value of areas named in acts of Congress or presidential proclamations as national rivers, national wilderness
areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.
There are no areas named in an act of Congress or Presidential proclamations as national rivers, national wilderness areas, or national lakeshores that will be impacted as a result of this project.
20. The degree to which a project redirects water from one watershed to another.
20. The degree to which a project redirects water from one watersned to another.

The project as proposed will not redirect water from one watershed to another.			
Additional comments			



Grantham 140/069, Non-Federal, 41188

Tony Weatherbee provided an overview of the project. The project scope is to rehabilitate the bridge that carries Rte. 114 over Stocker Pond Outlet (140/069). The existing structure is a concrete slab bridge that has a span of 24'-0" and a width of 36'-3". Proposed work consists of the following: place sandbag cofferdams and temporary scaffolding, replace the deck, and place riprap at stream bed if missing.

Matt Urban described the wetted channel lines vs. OHW (ordinary high water) lines on pictures and on the plan. T. Weatherbee said that riprap is proposed in front of all the abutments even though there is already riprap at some locations. T. Weatherbee showed an image of an ATV bridge located downstream.

T. Weatherbee said that it is possible for the project to be constructed using concrete anchor bolts drilled into the abutments to support the staging. M. Urban said that the water level when he was there was knee to thigh deep. Carol Henderson asked if we prefer to stage construction with the anchor bolts. T. Weatherbee said that it saves us time to be out of the water, but we would like to get the permit just in case.

Amy Lamb said that there are no NHB records in the area. Lori Sommer said that mitigation is not required.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

New Hampshire Department of Transportation Bureau of Bridge Maintenance Outlet

MITIGATION REPORT

The project consists of protection of existing infrastructure; therefore, mitigation is not required. At the October 19th Natural Resource Agency Coordination Meeting, it was determined that no mitigation would be required.

Hydraulic Data

Drainage Area – 2.72 sq mi

Q 100 = 267 cfs

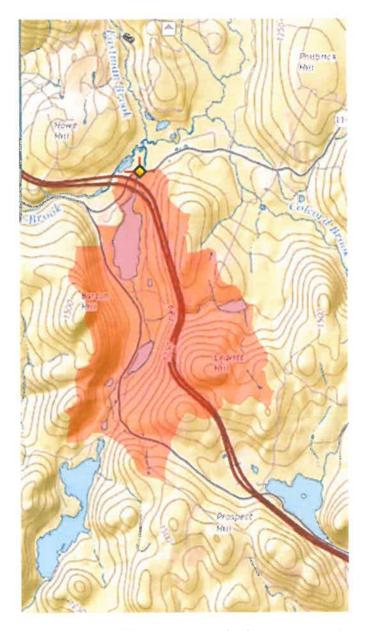
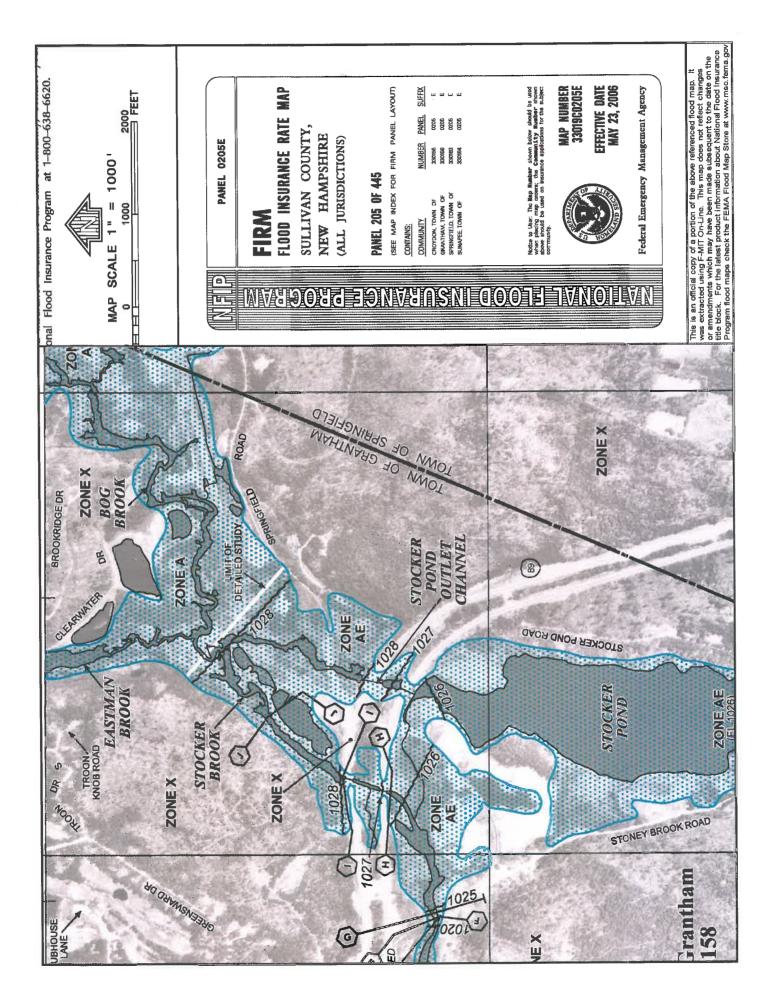


Figure 1: Watershed



Project # 41188, Bridge # 140/069 Grantham, NH, Rte. 114 over Stocker Pond Outlet



THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION BUREAU OF BRIDGE MAINTENANCE

7 Hazen Drive, PO Box 483, Concord, NH 03302-0095 Phone: (603) 271-3667 Fax: (603) 271-1588



WETLANDS PERMIT APPLICATION – ATTACHMENT C Stream Crossing Requirements & Information

Env-Wt 904.09(a) – If the applicant believes that installing the structure specified in the applicable rule is not practicable then the applicant may propose an alternative design in accordance with this section.

1. Please explain why the structure specified in the applicable rule is not practicable (Env-Wt 101.69 defines practicable as "available and capable of being done after taking into consideration costs, existing technology, and logistics in light of overall project purposes") (question 2, Attachment A, Minor and Major 20 Questions);

Stocker Pond Outlet has a drainage area of 2.72 square miles which qualifies this stream as a Tier 3 Crossing. The required span based on the NH Stream Crossing Guidelines for a new crossing is 26'-5". A structure of this size would cost approximately \$1,250,000. Spending this much money on a structure that could be adequately preserved for approximately \$100,000 would not be a practicable use of resources.

- 2. Please explain how the proposed alternative meets the specific design criteria for Tier 2 and Tier 3 crossings to the maximum extent practicable. Env-Wt 904.05 Design Criteria for Tier 2 and Tier 3 Stream Crossings New Tier 2 stream crossings, replacement Tier 2 crossings that do not meet the requirements of Env-Wt 904.07, and new and replacement Tier 3 crossings shall be designed and constructed...
- a)... In accordance with the NH Stream Crossing Guidelines:

The NH Stream Crossing Guidelines do not mention maintenance to a structure in a Tier 3 watershed however, the proposed work has been designed to meet the minimum design criteria outlined in Env-Wt 904.05 (see 2b though 2g) to the maximum extent practicable. The Department has designed the maintenance work to support aquatic organism passage and stream connectivity, but it is impracticable to replace the crossing with a structure that is of a fully compliant size at this time due to the constraints of maintenance work.

b)...With bed forms and streambed characteristics necessary to cause water depths and velocities within the crossing structure at a variety of flows to be comparable to those found in the natural channel upstream and downstream of the stream crossing:

Water depths and velocities within the crossing at a variety of flows will be comparable to the existing depths and velocities. These flows are comparable to those found in the natural channel upstream and downstream of the stream crossing. The placed riprap within the channel through the structure will be placed level with the stream bed and will not alter the current flow conditions.

c)...To provide a vegetated bank on both sides of the watercourse to allow for wildlife passage:

It is not possible to provide vegetated banks below the structure as the structure does not span the water course's banks. It is not possible to vegetate the banks in front of critical sections of infrastructure, such as wingwalls, because over time as the large vegetation grows through the riprap the vegetation's roots as well as tree falls threaten the integrity and stability of the riprap.

d)...To preserve the natural alignment and gradient of the stream channel, so as to accommodate natural flow regimes and the function of the natural floodplain (questions 14 and 15, Attachment A, Minor and Major 20 Questions);

The natural alignment and gradient of the stream channel will not be changed as a result of this project.

e)...To accommodate the 100-year frequency flood and to ensure that there is no increase in flood stages on abutting

properties (questions 11 and 14, Attachment A, Minor and Major 20 Questions):

The project as proposed will not alter the chance of flooding on abutting properties. This project will not change how the water body responds to high volumes of water.

f)...To simulate a natural stream channel:

The majority of the stream channel under the structure is currently a natural bottom and this will not be changed as a result of the project.

g)... So as not to alter sediment transport competence (question 14, Attachment A, Minor and Major 20 Questions):

Sediment transport competence will not be changed as a result of this project.

Env-Wt 904.09(c)(3) - The alternative design must meet the general design criteria specified in Env-Wt 904.01:

(a) Not be a barrier to sediment transport (question 14, Attachment A, Minor and Major 20 Questions);

Nothing that will be a barrier to sediment transport will be installed in this project.

(b) Prevent the restriction of high flows and maintain existing low flows (question 14, Attachment A, Minor and Major 20 Questions);

High flows will not be restricted and low flows will be maintained as a result of this project. The project as proposed will not have any effect on the structures ability to pass the 100 year storm event.

(c) Not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the water body beyond the actual duration of construction (question 7, Attachment A, Minor and Major 20 Questions);

The movement of aquatic life indigenous to the water body will not change as a result of this project.

(d) Not cause an increase in the frequency of flooding or overtopping of banks (question 14, Attachment A, Minor and Major 20 Questions);

The project as proposed will have no effect on the hydraulic capacity of the structure. High flows will not be restricted. The frequency of flooding or water overtopping the roadway or banks at the structure will not change due to the proposed work.

(e) Preserve watercourse connectivity where it currently exists (question 15, Attachment A, Minor and Major 20 Questions);

Connectivity will not be changed as a result of this project.

(f) Restore watercourse connectivity where...

...connectivity previously was disrupted as a result of human activity(ies) (question 15, Attachment A, Minor and Major 20 Questions);

The watercourse currently is connected. This will not change as a result of the project.

...restoration of connectivity will benefit aquatic life upstream or downstream of the crossing (question 15, Attachment A, Minor and Major 20 Questions);

Connectivity will not be changed as a result of this project. Aquatic life passage upstream or downstream of the crossing will not be affected as a result of this project.

Project # 41188, Bridge # 140/069 Grantham, NH, Rte. 114 over Stocker Pond Outlet

(g) Not cause erosion, aggradation, or scouring upstream or downstream of the crossing (question 14, Attachment A, Minor and Major 20 Questions);

The project will not cause erosion, aggradation, or scouring upstream or downstream of the crossing. The placed riprap is intended to prevent scour along the banks of the waterbody and the structure's wingwalls to prevent sediment transport and erosion in the future.

(h) Not cause water quality degradation (question 13, Attachment A, Minor and Major 20 Questions).

The project as proposed will not impact the quantity or quality of surface and/or groundwater at this site. Stormwater and surface water runoff will continue to sheet flow off the road and banks to the waterbody the way it does currently. Best Management Practices will be used to prevent any adverse effect to water quality during construction.

To:

Douglas Locker

Date: 8/25/2017

7 Hazen Drive Concord, NH 03302

From: NH Natural Heritage Bureau

Re:

Review by NH Natural Heritage Bureau of request dated 8/25/2017

NHB File ID: NHB17-2659

Applicant: Doug Gosling

Location: Tax Map(s)/Lot(s):

Grantham

Project Description:

Replace the deck of the existing bridge over Stocker Pond

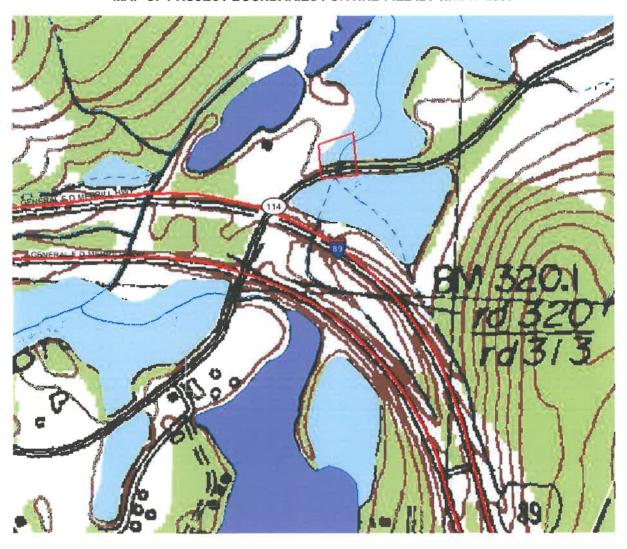
Outlet

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by gualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 8/24/2018.

MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB17-2659





United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland



August 18, 2017

In Reply Refer To:

Consultation Code: 05E1NE00-2017-SLI-2492

Event Code: 05E1NE00-2017-E-05449

Project Name: Bridge 140/069

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 (603) 223-2541

Project Summary

Consultation Code:

05E1NE00-2017-SLI-2492

Event Code:

05E1NE00-2017-E-05449

Project Name:

Bridge 140/069

Project Type:

BRIDGE CONSTRUCTION / MAINTENANCE

Project Description:

Rehabilitate the bridge that carries Rte. 114 over Stocker Pond outlet.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.49160828886298N72.10840841839061W



Counties:

Sullivan, NH

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

NAME

STATUS

Northern Long-eared Bat *Myotis septentrionalis*No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9045

Threatened

Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.

ProjectGrantham 41188	
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Wetland Application - NHDOT Cultural Resources Review

For the purpose of compliance with regulations of the National Historic Preservation Act, the Advisory Council on Historic Preservation's *Procedures for the Protection of Historic Properties* (36 CFR 800), the US Army Corps of Engineers' *Appendix C*, and/or state regulation RSA 227-C:9, *Directive for Cooperation in the Protection of Historic Resources*, the NHDOT Cultural Resources Program has reviewed the enclosed Standard Dredge and Fill Application for potential impacts to historic properties.

Proposed Project: NH RT 114 over Stocker Pond Outlet; rehabilitate the bridge that carries Rte. 114 over Stocker Pond Outlet (140/069). The existing structure is a concrete slab bridge that has a span of 24'-0" and a width of 36'-3". Proposed work consists of the following: place sandbag cofferdams and temporary scaffolding, replace the deck, and place riprap through the structure, along the edges of the channel, and inf front of the four wing walls

Above Ground Review		
Known/approximate age of structure: 1934 Concrete Slab (140/069), widened to both sides in 1996		
☑ No Potential to Cause Effect/No Concerns		
No concerns with deck replacement		
☐ Concerns:		
Below Ground Review		
Recorded Archaeological site: ☐Yes ☐No		
Nearest Recorded Archaeological Site Name & Number: 27-	-SU-0032, Barton Farmstead Site	
□ Pre-Contact □ Post-Contact		
Distance from Project Area: 4159 ft (1.26 km) southwest of	project area	
No Potential to Cause Effect/No Concerns		
The proposed work has a limited footprint and work will not impact undisturbed areas. Further, the project does not propose work that will result in any noteworthy visual or aesthetic changes to the area.		
☐ Concerns:		
Reviewed by:		
·		
Speice Charles	9/7/2017	
NHDOT Cultural Resources Staff	Date:	



New Hampshire Programmatic General Permit (PGP) Appendix B - Corps Secondary Impacts Checklist (for inland wetland/waterway fill projects in New Hampshire)

- 1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
- 2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
- 3. See PGP, GC 5, regarding single and complete projects.
- 4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See		
http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm		Х
to determine if there is an impaired water in the vicinity of your work area.*		
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	Х	
2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see		
PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of		
Resources and Economic Development Natural Heritage Bureau (NHB) website,		Х
www.nhnaturalheritage.org, specifically the book Natural Community Systems of New		
Hampshire.		
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology,	Х	
sediment transport & wildlife passage?		
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent		
to streams where vegetation is strongly influenced by the presence of water. They are often thin		
lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream		Х
banks. They are also called vegetated buffer zones.)		
2.5 The overall project site is more than 40 acres.		Х
2.6 What is the size of the existing impervious surface area?	28	372
2.7 What is the size of the proposed impervious surface area?	28	72
2.8 What is the % of the impervious area (new and existing) to the overall project site?		0%
3. Wildlife	Yes	No
3.1 Has the NHB determined that there are known occurrences of rare species, exemplary natural		
communities, Federal and State threatened and endangered species and habitat, in the vicinity of		Х
the proposed project? (All projects require a NHB determination.)		
3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or		
"Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green,		
respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological		
Condition.") Map information can be found at:		X
• PDF: www.wildlife.state.nh.us/Wildlife/Wildlife Plan/highest ranking habitat.htm.		
Data Mapper: www.granit.unh.edu .		
• GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		

3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		Х
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		Х
3.5 Are stream crossings designed in accordance with the PGP, GC 21?	Х	
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	Х	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?	Х	
5. Historic/Archaeological Resources		
For a minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) shall be sent to the NH Division of Historical Resources as required on Page 5 of the PGP**		Х

^{*}Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law..

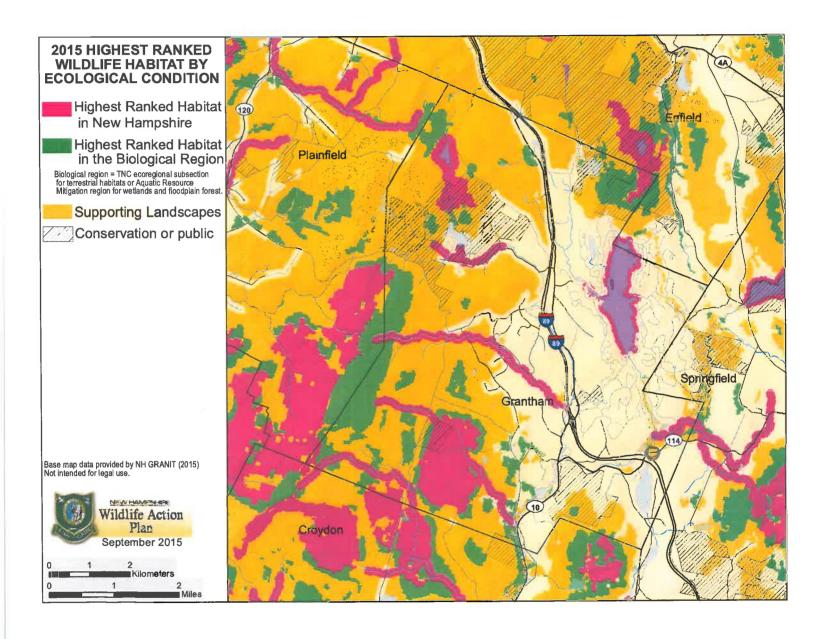




Figure 2: Structure elevation facing at the inlet (8/2016).



Figure 3: Structure located at the outlet (8/2016).



Figure 4: View of Stocker Pond Outlet (8/2016).



Figure 5: Upstream of structure (4/2016).



Figure 6: Approach facing east. (4/2016).



Figure 7: Approach facing west (4/2016).

CONSTRUCTION SEQUENCE

- 1. Sandbags and temporary scaffolding will be placed in the brook and the work zone will be dewatered. Stream flow will be maintained through the natural channel.
- 2. The deck will be replaced.
- 3. Riprap will be installed.
- 4. All dewatering devices and temporary scaffolding will be removed and the site will be restored to its original quality.

Note:

Project will use and maintain DES Best Management Practices at all stages of construction.

PART Env-Wt 404 CRITERIA FOR SHORELINE STABILIZATION

The rehabilitation of the bridge that carries Rte. 114 over Stocker Pond Outlet proposes the placement of stone fill within areas under the jurisdiction of the NH Wetlands Bureau and the US Army Corps of Engineers. The stone fill will be located in the channel through the structure along the edges and along the wings of the proposed structure as shown on the plans.

Pursuant to PART Wt 404 Criteria for Shoreline Stabilization, the following addresses each codified section of the Administrative Rules:

Wt 404.01 Least Intrusive Method

The riverbank stabilization treatment proposed is the least intrusive construction method necessary to minimize the disruption to the existing shorelines. The stone treatment can be reasonably constructed utilizing general highway construction methods.

Wt 404.02 Diversion of Water

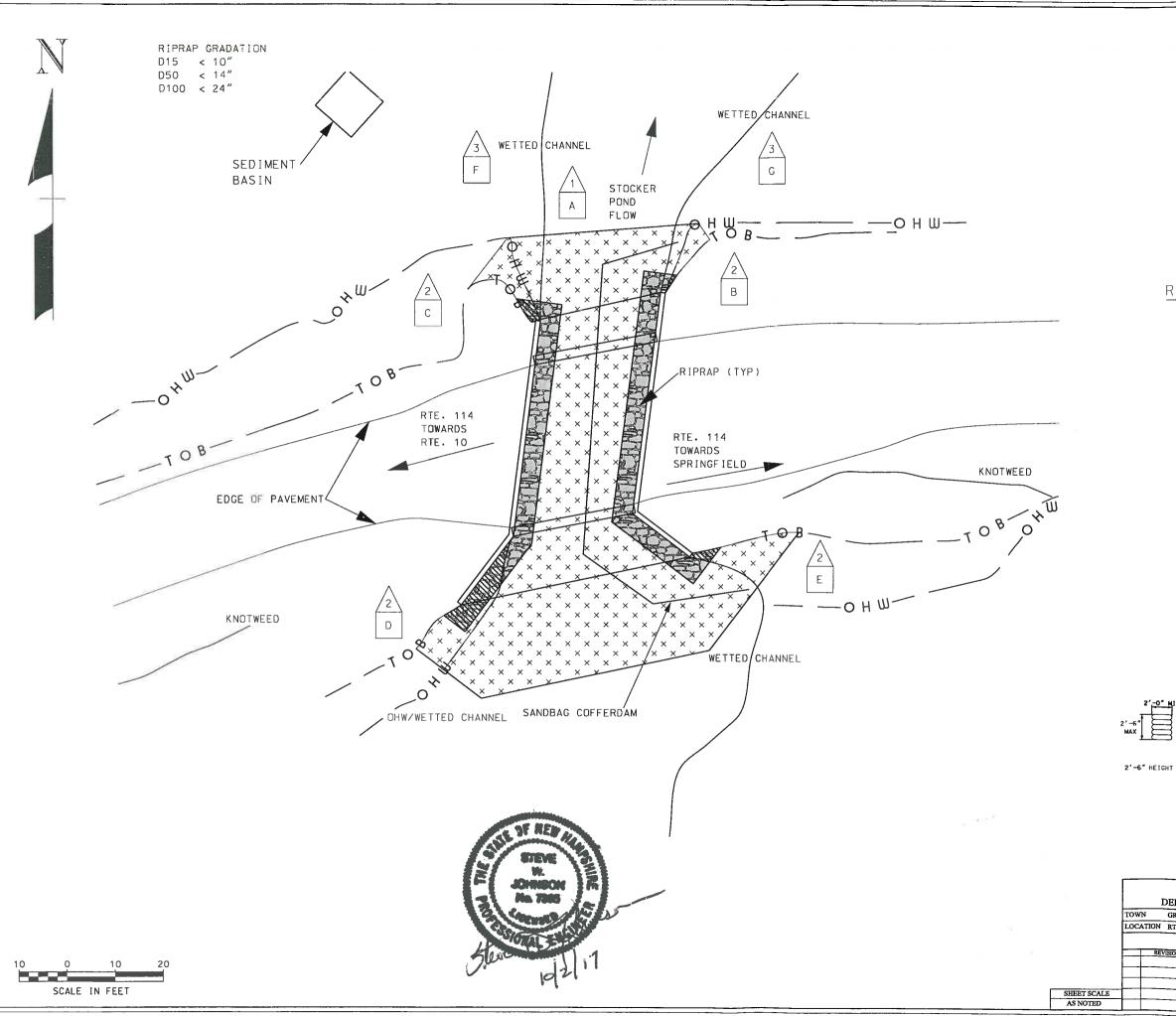
Proposed roadway drainage will allow storm water run-off to be diverted so that it will flow over vegetated areas, along the roadway embankment insofar as possible, prior to entering Stocker Pond Outlet. This will minimize erosion of the shoreline.

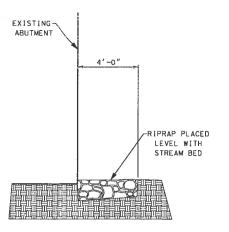
Wt 404.03 Vegetative Stabilization

Natural vegetation will be left undisturbed to the maximum extent possible. The only locations being disturbed are the impacted areas on the plan for construction. All newly developed slopes and disturbed areas other than riprapped areas in front of critical sections of infrastructure will have humus and seed applied for turf establishment, which will help stabilize the project area.

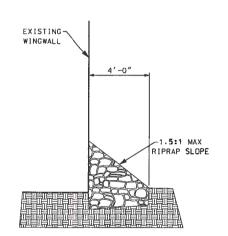
Wt 404.04 Rip-Rap

- (a) Stone fill, as proposed, is shown on the attached plans to protect the channel and bank as necessary. Stable embankments are necessary to maintain the structural integrity of the bridge during all flow conditions.
- (b) (1-5) The minimum and maximum stone size, the gradation, cross sections of the stone fill, proposed location, and other details have been provided on the attached plans. Bedding for the stone fill will consist of natural ground excavated to the proposed underside of the stone fill.
- (b) (6) Enclosed are plan sheets to sufficiently indicate the relationship of the project to fixed points of reference, abutting properties, and features of the natural shoreline.
- (b) (7) Stone fill is recommended for the limits shown on the attached plans to protect the banks from erosion during flood flows, from scour during all flows, and slopes greater than 2:1 have difficulty supporting vegetation, and also around the substructure to prevent scour and replacing existing armoring of the structure.
- (c) This project is not located adjacent to a great pond or water body where the state holds fee simple ownership.
- (d) Stone fill is proposed to extend down to and adequately keyed into the channel bottom along wingwalls to prevent possible undermining of the slope as well as possible scour beneath the substructure.
- (e) The enclosed plan has been stamped by a professional engineer.

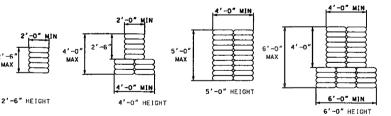




RIPRAP CROSS SECTION THROUGH CHANNEL NOT TO SCALE



RIPRAP CROSS SECTION THROUGH BANK NOT TO SCALE



COFFERDAM DETAILS

NOT TO SCALE

WETLANDS DELINEATED BY M. URBAN ON 8/2016

STATE OF NEW HAMPSHIRE										
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE										
TOWN GRANTHAM BRIDGE NO. 140/069 STATE PROJECT 41188										
LOCATION RTE. 114 OVER STOCKER POND OUTLET										
WETLA	ND IMPACTS	3						BRIDGE SHEET		
REVISIONS AFTER PROPOSAL		BY	DATE			BY	DATE	1 OF 2		
_i	DESIGNED	ANW	9/20/16	CHECK	KED			FILE NUMBER		
	DRAWN									
	QUANTITIES	QUANTITIES CHECKED 140/069								
	ISSUE DATE		FISCAL YI	EAR	CREW	SHE	ET NO.	TOTAL SHEETS		
	REV. DATE		2016		04		1	2		

Grantham 140/087

					WETLAND IN	/IPACT SUM	VIARY			·-								
	AREA IMPACTS							AREA IMPACTS	AREA IMPACTS				LINEAR STREAM IMPACTS FOR MITIGATION					
				PERMANENT							PERMANENT							
WETLAND NUMBER	WETLAND CLASSIFICATION	LOCATION	N.H.W.B. N.H.W.B. & A.C.O.E. (WETLAND)										TEMPORARY				BANK RIGHT	CHANNEL
<u> </u>			SF	LF	SF	LF	SF	LF		LF	LF	LF						
1	R2UB3	Α			518	73	2516	94										
2	BANK	В	2	5			31	10										
2	BANK	С	12	7			59	12										
2	BANK	D	68	4			78	9										
2	BANK	E	9	6			107	17										
3	PSS1E	F			3		66											
3	PSS1E	G			5		25											
		Н																
		1																
		J																
		К																
		L																
		TOTAL	91	22	526	73	2882	142		0	0	0						

PERMANENT IMPACTS: TEMPORARY IMPACTS:

617 SF 2882 SF

TOTAL IMPACTS:

3499 SF

			PERM					
SUBTOTALS		SUBTOTALS N.H.W.B. (NON WETLAND)			& A.C.O.E. LAND)	TEMPORARY		
CLASS	DESCRIPTION	SF	LF	SF LF		SF	LF	
R2UB3	RIVERINE	0	0	518	73	2516	94	
BANK	BANK	91	22	0	0	275	48	
PSS1E	RIVERINE INTERMITTENT	0	0	8	0	91	0	
		0	0	0	0	. 0	0	
		0	0	0	0	0	0	

LEGEND

	WETLAND CLASSIFICATION CODES
R2UB3	RIVERINE, LOWER PERENNIAL, UNCONSOLIDATED BOTTOM. MUD
PSS1E	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
BANK	

TYPE GF WETLAND IMPACT	SHADING/ HATCHING	# WETLAND DESIGNATION NUMBER
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)		# WETLAND IMPACT LOCATION
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)		# WETLAND MITIGATION AREA
TEMPORARY IMPACTS	- + +	MITIGATION

F											
	STATE OF NEW HAMPSHIRE										
	DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE										
	TOWN	GRANTHAM			BRIDGE N	IO. 140	/069	STAT	E PRO	JECT 4	188
	LOCATION RTE. 114 OVER STOCKER POND OUTLET										
		WETLA	ND I	KEY ANI	O SUN	/MAI	RY				BRIDGE SHEET
		REVISIONS AFTER PROPOSAL			BY	DATE			BY	DATE	2 OF 2
	L			DESIGNED	ANW	9/20/16	CHEC	KED		L	FILE NUMBER
				DRAWN ANW 9/20/16 CHECKED						GRANTHAM	
				QUANTITIES CHECKED						140/069	
SHEET SCALE				ISSUE DATE		FISCAL Y	EAR	CREW	SHI	ET NO.	TOTAL SHEETS
AS NOTED				REV. DATE		2016			L	2	2